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EXAMINER	
LE, TOAN M	
ART UNIT	**PAPER NUMBER**
2863	

DATE MAILED: 11/10/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/739,430	Applicant(s) RAVI ET AL.	
	Examiner Toan M Le	**Art Unit** 2863	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *18 December 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-34* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-34* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *18 December 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *12/18/03*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-11 and 18-34 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 2, 3, 5, 8-12, 13-21 of U.S. Patent No. 6,697,738. A comparison of the claims is presented on the table below:

U.S. Patent No. 6,697,738	Instant Application 10/739430
8. A method for selecting a cementing composition from a set of cementing composition for sealing a subterranean zone penetrated by a well bore comprising: determining cement data for each cementing composition of the set of cement compositions; using the cement data to calculate a total maximum stress difference for each of the set of cementing composition; determining well input data; determining well events; determining well event stress states from well events; and comparing the well input data and well event stress states to the cement data from each of the set of cementing compositions to determine effective cementing compositions for sealing the subterranean zone.	1. A method for selecting a cementing composition intended for use in a subterranean zone penetrated by a well bore comprising: determining a total maximum stress difference for a cementing composition using data from the cementing composition; determining well input data; and comparing the well input data to the total maximum stress difference to determine whether the cementing composition is effective for the intended use.
15. The method of claim 8 wherein the cement data comprises at least one of tensile strength, unconfined and confined tri-axial data, hydrostatic data, oedometer data, compressive strength, porosity, permeability, Young's modulus, Poisson's Ratio, and Mohr-Coulomb plastic parameters.	2. The method of claim 1 wherein the data from the cementing composition comprises at least one of tensile strength, unconfined and confined tri-axial data, hydrostatic data, oedometer data, compressive strength, porosity, permeability, Young's modulus, Poisson's Ratio, and Mohr-Coulomb plastic parameters.
19. The method of claim 8 wherein the total maximum stress difference is determined according to the formula $\Delta\sigma_{sh} = k \int E_{(\varepsilon sh)} \cdot d\varepsilon_{sh}$ where $\Delta\sigma_{sh}$ is the total maximum stress difference; k is a factor depending on the Poisson ratio of the cementing composition and the boundary conditions between rock in the subterranean zone penetrated by the well bore and the cementing composition; $E_{(\varepsilon sh)}$ is the Young's modulus of the cementing composition; and (ε_{sh}) represents shrinkage of the cementing composition at a time during setting.	3. The method of claim 1 wherein the total maximum stress difference is determined according to the formula $\Delta\sigma_{sh} = k \int E_{(\varepsilon sh)} \cdot d\varepsilon_{sh}$ where: $\Delta\sigma_{sh}$ is the total maximum stress difference; k is a factor depending on the Poisson ratio of the cementing composition and the boundary conditions between rock in the subterranean zone penetrated by the well bore and the cementing composition; $E_{(\varepsilon sh)}$ is the Young's modulus of the cementing composition; and (ε_{sh}) represents shrinkage of the cementing composition at a time during setting.
10. The method of claim 8 wherein said determining of the well input data comprises determining at least one of vertical depth of the well, overburden gradient, pore pressure, maximum and minimum horizontal stresses, hole size, casing outer diameter, casing inner diameter, density of drilling fluid, density of cement slurry, density of completion fluid, and top of cement.	4. The method of claim 1 wherein said determining of the well input data comprises determining at least one of vertical depth of the well, overburden gradient, pore pressure, maximum and minimum horizontal stresses, hole size, casing outer diameter, casing inner diameter, density of drilling fluid, density of cement slurry, density of completion fluid, and top of cement.
20. The method of claim 8 wherein said determining well input data further comprises evaluating a stress state of rock penetrated by the well bore in the subterranean zone.	5. The method of claim 1 wherein said determining of the well input data comprises evaluating a stress state of rock in the subterranean zone penetrated by the well bore.
21. The method of claim 20 wherein said evaluating the stress state of the rock comprises analyzing properties of the rock selected from the group consisting of Young's modulus, Poisson's ratio and yield parameters.	6. The method of claim 5 wherein said evaluating the stress state of the rock comprises analyzing properties of the rock selected from the group consisting of Young's modulus, Poisson's ratio and yield parameters.
9. The method of claim 8 further comprising determining risk failure of cement failure for the effective cement compositions.	7. The method of claim 1 further comprising determining risk failure for the cementing composition determined to be effective for the intended used.
8. A method for selecting a cementing composition from a set of cementing composition for sealing a subterranean zone penetrated by a well bore comprising: determining well event stress states from well events; and comparing the well input data and well event stress states to the cement data from each of the set of cementing compositions to determine effective cementing compositions for sealing the subterranean zone. 12. The method of claim 8 wherein the well event stress states are based on anticipated well events.	8. The method of claim 1 further comprising determining at least one well event stress state associated with at least one anticipated well event; and comparing the well input data to the at least one well event stress state to determine whether the cementing composition is effective for the intended use.

13. The method of claim 12 wherein the well events comprises at least one well event selected from the group consisting of cement hydration, pressure testing, well completions, hydraulic fracturing, hydrocarbon production, fluid injection, formation movement, perforation, and subsequent drilling.	9. The method of claim 8 wherein the anticipated well event comprises at least one well event selected from the group consisting of cement hydration, pressure testing, well completions, hydraulic fracturing, hydrocarbon production, fluid injection, formation movement, perforation, and subsequent drilling.
11. The method of claim 8 wherein said determining of the well event stress state comprises determining stress associated with at least one anticipated well event selected from the group consisting of shrinkage, pressure, temperature, load, and dynamic load.	10. The method of claim 8 wherein said determining of the well event stress state comprises determining stress associated with at least one anticipated well event selected from the group consisting of shrinkage, pressure, temperature, load, and dynamic load.
14. The method of claim 8 wherein the cementing compositions comprise cement with a Young's modulus of about 1.2e+6 psi (8.27 GPa), shrinkage compensated cement with a Young's modulus of about 1.2e+6 psi (8.27 GPa), and shrinkage compensated cement with a Young's modulus of about 1.35e+5 psi (0.93 GPa).	11. The method of claim 1 wherein the cementing composition is selected from the group consisting of cement with a Young's modulus of about 1.2e+6 psi (8.27 GPa), shrinkage compensated cement with a Young's modulus of about 1.2e+6 psi (8.27 GPa), and shrinkage compensated cement with a Young's modulus of about 1.35e+5 psi (0.93 GPa).
1. A method for selecting a cementing composition from a set of cementing compositions for sealing a subterranean zone penetrated by a well bore comprising: determining cement data for each cementing composition of the set of cementing compositions; using the cement data to calculate a total maximum stress difference for each of the set of cementing compositions; determining well input data; determining well events; determining well event stress states from the well events; comparing the well input data and well event stress states to the cement data from each of the set of cementing compositions to determine effective cementing compositions for sealing the subterranean zone; and determining risk of cement failure for the effective cementing compositions.	18. A method of performing a cost-benefit analysis on a cementing composition intended for use in a subterranean zone penetrated by a well bore comprising: determining a total maximum stress difference for a cementing composition using data from the cementing composition; determining well input data; comparing the well input data to the total maximum stress difference to determine whether the cementing composition is effective for the intended use; determining at least one well event stress state associated with at least one anticipated well event; comparing the well input data to the at least one well event stress state to determine whether the cementing composition is effective for the intended use; determining the risk of failure for the cementing composition determined to be effective for the intended use; and determining whether the risk of failure is acceptable given monetary costs associated with the cementing composition.
7. The method of claim 1 wherein the cement data comprises at least one of tensile strength, unconfined and confined tri-axial data, hydrostatic data, oedometer data, compressive strength, porosity, permeability, Young's modulus, Poisson's Ratio, and Mohr-Coulomb plastic parameters.	19. The method of claim 18 wherein the data from the cementing composition comprises at least one of tensile strength, unconfined and confined tri-axial data, hydrostatic data, oedometer data, compressive strength, porosity, permeability, Young's modulus, Poisson's Ratio, and Mohr-Coulomb plastic parameters.
16. The method of claim 1 wherein the total maximum stress difference is determined according to the formula $\Delta\sigma_{sh} = k \int E_{(\varepsilon sh)} \cdot d\varepsilon_{sh}$ where: $\Delta\sigma_{sh}$ is the total maximum stress difference; k is a factor depending on the Poisson ratio of the cementing composition and the boundary conditions between rock in the subterranean zone penetrated by the well bore and the cementing composition; $E_{(\varepsilon sh)}$ is the Young's modulus of the cementing composition; and (ε_{sh}) represents shrinkage of the cementing composition at a time during setting.	20. The method of claim 18 wherein the total maximum stress difference is determined according to the formula $\Delta\sigma_{sh} = k \int E_{(\varepsilon sh)} \cdot d\varepsilon_{sh}$ where: $\Delta\sigma_{sh}$ is the total maximum stress difference; k is a factor depending on the Poisson ratio of the cementing composition and the boundary conditions between rock in the subterranean zone penetrated by the well bore and the cementing composition; $E_{(\varepsilon sh)}$ is the Young's modulus of the cementing composition; and (ε_{sh}) represents shrinkage of the cementing composition at a time during setting.

2. The method of claim 1 wherein said determining of the well input data comprises determining at least one of vertical depth of the well, overburden gradient, pore pressure, maximum and minimum horizontal stresses, hole size, casing outer diameter, casing inner diameter, density of drilling fluid, density of cement slurry, density of completion fluid, and top of cement.	21. The method of claim 18 wherein said determining of the well input data comprises determining at least one of vertical depth of the well, overburden gradient, pore pressure, maximum and minimum horizontal stresses, hole size, casing outer diameter, casing inner diameter, density of drilling fluid, density of cement slurry, density of completion fluid, and top of cement.
17. The method of claim 1 wherein said determining of the well input data further comprises evaluating a stress state of rock penetrated by the well bore in the subterranean zone.	22. The method of claim 18 wherein said determining of the well input data comprises evaluating a stress state of rock in the subterranean zone penetrated by the well bore.
18. The method of claim 17 wherein said evaluating the stress state of the rock comprises analyzing properties of the rock selected from the group consisting of Young's modulus, Poisson's ratio and yield parameters.	23. The method of claim 22 wherein said evaluating the stress state of the rock comprises analyzing properties of the rock selected from the group consisting of Young's modulus, Poisson's ratio and yield parameters.
5. The method of claim 4 wherein the well event comprises at least one well event selected from the group consisting of cement hydration, pressure testing, well completions, hydraulic fracturing, hydrocarbon production, fluid injection, formation movement, perforation, and subsequent drilling.	24. The method of claim 18 wherein the anticipated well event comprises at least one well event selected from the group consisting of cement hydration, pressure testing, well completions, hydraulic fracturing, hydrocarbon production, fluid injection, formation movement, perforation, and subsequent drilling.
3. The method of claim 1 wherein said determining of the well event stress state comprises determining stress associated with at least one anticipated well event selected from the group consisting of shrinkage, pressure, temperature, load, and dynamic load.	25. The method of claim 18 wherein said determining of the well event stress state comprises determining stress associated with at least one anticipated well event selected from the group consisting of shrinkage, pressure, temperature, load, and dynamic load.
8. A method for selecting a cementing composition from a set of cementing compositions for sealing a subterranean zone penetrated by a well bore comprising: determining cement data for each cementing composition of the set of cementing compositions; using the cement data to calculate a total maximum stress difference for each of the set of cementing compositions; determining well input data; determining well events; determining well event stress states from the well events; and comparing the well input data and well event stress states to the cement data from each of the set of cementing compositions to determine effective cementing compositions for sealing the subterranean zone. 12. The method of claim 8 wherein the well event stress states are based on anticipated well events.	26. A method for selecting a cementing composition intended for use in a subterranean zone penetrated by a well bore comprising: determining a total maximum stress difference for a cementing composition using data from the cementing composition; determining well input data; comparing the well input data to the total maximum stress difference to determine ta least in part whether the cementing composition is effective for the intended use; determining at least one well event stress state associated with at least one anticipated well event; comparing the well input data to the at least one well event stress state to determine whether the cementing composition is effective for the intended use.
15. The method of claim 8 wherein the data from the cementing composition comprises at least one of tensile strength, unconfined and confined tri-axial data, hydrostatic data, oedometer data, compressive strength, porosity, permeability, Young's modulus, Poisson's Ratio, and Mohr-Coulomb plastic parameters.	27. The method of claim 26 wherein the data from the cementing composition comprises at least one of tensile strength, unconfined and confined tri-axial data, hydrostatic data, oedometer data, compressive strength, porosity, permeability, Young's modulus, Poisson's Ratio, and Mohr-Coulomb plastic parameters.
19. The method of claim 8 wherein said calculating a total maximum stress difference for each of the set of cementing compositions is performed according to the formula $\Delta\sigma_{sh} = k \int E_{(\varepsilon sh)} \cdot d\varepsilon_{sh}$ where $\Delta\sigma_{sh}$ is the total maximum stress difference; k is a factor depending on the Poisson ratio of the cementing composition and the boundary conditions between rock in the subterranean zone penetrated by the well bore and the cementing composition; $E_{(\varepsilon sh)}$ is the Young's modulus of the cementing composition; and $_{(\varepsilon sh)}$ represents shrinkage of the cementing composition at a time during setting.	28. The method of claim 18 wherein the total maximum stress difference is determined according to the formula $\Delta\sigma_{sh} = k \int E_{(\varepsilon sh)} \cdot d\varepsilon_{sh}$ where: $\Delta\sigma_{sh}$ is the total maximum stress difference; k is a factor depending on the Poisson ratio of the cementing composition and the boundary conditions between rock in the subterranean zone penetrated by the well bore and the cementing composition; $E_{(\varepsilon sh)}$ is the Young's modulus of the cementing composition; and $_{(\varepsilon sh)}$ represents shrinkage of the cementing composition at a time during setting.

10. The method of claim 8 wherein said determining of the well input data comprises determining at least one of vertical depth of the well, overburden gradient, pore pressure, maximum and minimum horizontal stresses, hole size, casing outer diameter, casing inner diameter, density of drilling fluid, density of cement slurry, density of completion fluid, and top of cement.	29. The method of claim 26 wherein said determining of the well input data comprises determining at least one of vertical depth of the well, overburden gradient, pore pressure, maximum and minimum horizontal stresses, hole size, casing outer diameter, casing inner diameter, density of drilling fluid, density of cement slurry, density of completion fluid, and top of cement.
20. The method of claim 8 wherein said determining of the well input data comprises evaluating a stress state of rock penetrated by the well bore in the subterranean zone.	30. The method of claim 26 wherein said determining of the well input data comprises evaluating a stress state of rock in the subterranean zone penetrated by the well bore.
21. The method of claim 20 wherein said evaluating the stress state of the rock comprises analyzing properties of the rock selected from the group consisting of Young's modulus, Poisson's ratio and yield parameters.	31. The method of claim 30 wherein said evaluating the stress state of the rock comprises analyzing properties of the rock selected from the group consisting of Young's modulus, Poisson's ratio and yield parameters.
9. The method of claim 8 further comprising determining risk of cement failure for the effective cementing compositions.	32. The method of claim 26 further comprising determining risk of failure for the cementing composition determined to be effective for the intended use.
13. The method of claim 12 wherein the well events comprise at least one well event selected from the group consisting of cement hydration, pressure testing, well completions, hydraulic fracturing, hydrocarbon production, fluid injection, formation movement, perforation, and subsequent drilling.	33. The method of claim 26 wherein the anticipated well event comprises at least one well event selected from the group consisting of cement hydration, pressure testing, well completions, hydraulic fracturing, hydrocarbon production, fluid injection, formation movement, perforation, and subsequent drilling.
11. The method of claim 8 wherein said determining of the well event stress state comprises determining stress associated with at least one anticipated well event selected from the group consisting of shrinkage, pressure, temperature, load, and dynamic load.	34. The method of claim 18 wherein said determining of the well event stress state comprises determining stress associated with at least one anticipated well event selected from the group consisting of shrinkage, pressure, temperature, load, and dynamic load.

Although the conflicting claims are not identical, they are not patentably distinct from each other because it would have been obvious to one having ordinary skill in the art at the time the invention was made to have determined a total maximum stress difference for a cementing composition taught in the U.S. Patent No. 6,697,738 to compare the well input data to the total maximum stress difference from cementing composition data to help estimate the ability of selected cement composition to withstand the total stresses so that the risk of failure for the cementing composition will be determined in terms of acceptable monetary costs.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 12-17 are rejected under 35 U.S.C. 102(b) as being anticipated by "Design Approach to Sealant Selection for the Life of the Well"; Bosma et al. (referred hereafter Bosma et al.).

Referring to claim 12, Bosma et al. disclose a method for selecting a cementing composition intended for use in a subterranean zone penetrated by a well bore comprising:

defining initial conditions in the well bore by evaluating a stress state of rock in the subterranean zone penetrated by the well bore (page 287, 2nd col., Example Well section: 1st and 2nd paragraphs) and evaluating a stress state associated with a cement composition introduced into the well bore (page 287, 2nd col., Example well section: 3rd and 4th paragraphs); and

determining whether the cementing composition is effective for the intended use by determining whether the cement composition will de-bond from the rock (page 288, 2nd col., 4th paragraph; page 289, 1st col., Unstable Well section: 1st, 2nd, and 3rd paragraphs) .

As to claim 13, Bosma et al. disclose a method for selecting a cementing composition intended for use in a subterranean zone penetrated by a well bore wherein the evaluating of the stress state associated with the cement composition introduced into the well bore comprises using data associated with the cementing composition that comprises at least one of tensile strength, unconfined and confined tri-axial data, hydrostatic data, oedometer data, compressive strength, porosity, permeability, Young's modulus, Poisson's Ratio, and Mohr-Coulomb plastic parameters (page 286, 2nd col., 1st half; Table 4).

Referring to claim 14, Bosma et al. disclose a method for selecting a cementing composition intended for use in a subterranean zone penetrated by a well bore wherein the evaluating the stress state of the rock in the subterranean zone comprises analyzing properties of the rock selected from the group consisting of Young's modulus, Poisson's ratio and yield parameters (page 287, 2nd col., Example Well section: 2nd and 3rd paragraphs).

As to claim 15, Bosma et al. disclose a method for selecting a cementing composition intended for use in a subterranean zone penetrated by a well bore further comprising:

determining at least one well event stress state associated with at least one anticipated well event (page 287, 2nd col., Example Well section: 2nd and 3rd paragraphs); and

determining whether the cementing composition will de-bond from the rock (page 289, 1st col., Unstable Well section: 2nd and 3rd paragraphs).

Referring to claim 16, Bosma et al. disclose a method for selecting a cementing composition intended for use in a subterranean zone penetrated by a well bore wherein the anticipated well event comprises at least one well event selected from the group consisting of cement hydration, pressure testing, well completions, hydraulic fracturing, hydrocarbon production, fluid injection, formation movement, perforation, and subsequent drilling (page 284, 2nd col., 1st half).

As to claim 17, Bosma et al. disclose a method for selecting a cementing composition intended for use in a subterranean zone penetrated by a well bore wherein the determining of the well event stress state comprises determining stress associated with at least one anticipated well event selected from the group consisting of shrinkage, pressure, temperature, load, and dynamic load (page 288, 1st col., 1st half).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Patent No. 6,776,237 to Dao et al. U.S. Patent No. 6,562,122 to Dao et al.

U.S. Patent No. 5,348,093 to Wood et al. U.S. Patent No. 5,375,661 to Daneshy et al.

U.S. Patent No. 5,896,927 to Roth et al. U.S. Patent No. 6,488,089 to Bour et al.

U.S. Patent No. 6,516,884 to Chattterji et al. U.S. Patent No. 6,732,797 to Watters et al.

U.S. Patent No. 6,799,636 to Funkhouser et al.

U.S. Patent No. 6,668,928 to Brothers U.S. Patent No. 6,626,243 to Go Boncan

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Toan M Le whose telephone number is (571) 272-2276. The examiner can normally be reached on Monday through Friday from 9:00 A.M. to 5:30 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Barlow can be reached on (571) 272-2269. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Toan Le

October 28, 2004

John Barlow
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